

WHAT IS CLAIMED IS:

- 0902285-071101
1. A method for controlling frames of a moving picture, comprising:
 - storing a first frame of the moving picture to a first buffer storing unit;
 - transferring the first frame from the first buffer storing unit;
 - storing a second frame of the moving picture to a second buffer storing unit;
 - transferring the second frame from the second buffer storing unit;
 - monitoring completely transferring of the first frame from the first buffer storing unit and completely storing of the second frame to the second buffer storing unit to determine which is sooner; and
 - deciding whether to alternate or maintain the transferring from and the storing to the first and second buffer storing units, based on a result of the monitoring step.
 2. The method as claimed in claim 1, wherein when complete storing of the second frame to the second buffer storing unit is sooner than complete transferring of the first frame from the first buffer storing unit in the monitoring step, the deciding step further comprises storing a third frame of the moving picture in the second buffer storing unit.
 3. The method as claimed in claim 2, wherein when complete transferring of the first frame from the first buffer storing unit is sooner than complete storing of the second frame to the second buffer storing unit in the monitoring step, the deciding step further comprises alternating the first and second buffer storing units such that the second frame is transferred from the second storing unit and a third frame of the moving picture is stored in the first buffer storing unit.

4. The method as claimed in claim 2, wherein each of the steps of storing to the first buffer storing unit and of storing to the second buffer storing unit includes receiving frames from the moving picture in time sequence.

5. The method as claimed in claim 4, wherein the deciding step further comprises overwriting one or more succeeding frames following the second frame of the moving picture in the second buffer storing unit until the first frame is completely transferred from the first buffer storing unit.

6. The method as claimed in claim 4, wherein the monitoring step includes monitoring whether a predetermined time passes in the transferring step of the first frame, and wherein, when the predetermined time passes, the deciding step includes stopping the transferring of the first frame and starting the transferring of the second frame from the second buffer storing unit.

7. The method as claimed in claim 4, wherein the monitoring step includes monitoring whether a predetermined time passes in the transferring step of the first frame, and wherein, when the predetermined time passes, the deciding step includes stopping the storing of the succeeding frames to the second buffer storing unit.

8. The method as claimed in claim 4, wherein each of the steps of transferring from the first buffer storing unit and transferring from the second buffer storing unit includes writing the stored frame to a hard disk.

9. The method as claimed in claim 1, wherein in case where completely transferring of the first frame from the first buffer storing unit is sooner than completely storing of the second frame

to the second buffer storing unit in the monitoring step, the deciding step includes transferring again the first frame from the first buffer storing unit.

10. The method as claimed in claim 9, wherein if completely storing of the second frame to the second buffer storing unit is sooner than completely transferring of the first frame from the first buffer storing unit in the monitoring step, then the deciding step includes alternating the first and second buffer storing units such that the second frame is transferred from the second storing unit and a third frame of the moving picture is stored in the first buffer storing unit.

11. The method as claimed in claim 9, wherein each of the steps of transferring from the first buffer storing unit and transferring from the second buffer storing unit includes transferring the frames to a display device.

12. The method as claimed in claim 11, wherein in the deciding step, the first frame is continuously transferred from the first storing unit to the display device until the second frame is completely stored to the second buffer storing unit.

13. The method as claimed in claim 11, wherein the monitoring step includes monitoring whether a predetermined time passes in the storing step of the second frame, and wherein, when the predetermined time passes, the deciding step includes changing the second frame to a third frame to be stored.

14. The method as claimed in claim 9, wherein each of the steps of storing to the first buffer storing unit and of storing to the second buffer storing unit includes reading out a frame from a hard disk.

15. An apparatus for controlling frames of a moving picture, comprising:

a first buffer storing unit having a capacity of storing at least one frame;

a second buffer storing unit having a capacity of storing at least one frame;

a buffer storage processing unit which allocates, in time sequence, the frames of the moving picture in time sequence to the first buffer storing unit and the second buffer storing unit; and

a buffer transferring unit which transfers a frame stored in either one of the first buffer storing unit and the second buffer storing unit,

wherein, depending on which is sooner between completely transferring of one frame stored in either one of the first and second buffer storing units and completely storing of another frame succeeding the one frame to the other one of the first and second buffer storing units, the buffer storage processing unit and the buffer transferring unit alternate or maintain the transferring from and the storing to the first and second buffer storing units.

16. The apparatus as claimed in claim 15, wherein the buffer transferring unit includes a completion signal generation unit which generates a completion signal to the buffer storage processing unit when the stored frame is completely transferred from the one of the first and second buffer storing units, and wherein the buffer storage processing unit includes a storage source changing unit which instructs to keep on storing one or more succeeding frames following the succeeding frame to the other of the first and second storing units until receiving the complete signal.

17. The apparatus as claimed in claim 16, wherein the storage source changing unit instructs to alternate the first and second

storing units for storing a succeeding frame of the moving picture when the storage source changing unit receives the completion signal from the completion signal generation unit.

18. The apparatus as claimed in claim 16, wherein when a predetermined time passes for transferring the stored frame from the one of the first and second buffer storing units, the buffer transferring unit stops transferring the stored frame from the one of the first and second buffer storing frame and starts transferring the stored frame from the other of the first and second buffer storing units.

19. The apparatus as claimed in claim 16, wherein when a predetermined time passes for transferring the stored frame from the one of the first and second buffer storing units, the buffer storage processing unit stops storing the succeeding frames to the other of the first and second buffer storing units.

20. The apparatus as claimed in claim 16, further comprising a hard disk in which the frames transferred from the frame transferring unit are written.

21. The apparatus as claimed in claim 15, wherein the buffer storage processing unit includes a completion signal generation unit which generates a completion signal to the buffer storage processing unit when the frame is completely stored to the other of the first and second buffer storing units, and wherein the buffer transferring unit includes a read-out source changing unit which instructs to transfer again the frame from the one of the first and second buffer storing units.

22. The apparatus as claimed in claim 21, wherein the read-out source changing unit instructs to alternate the first and second storing units for transferring the stored frame when the read-out

source changing unit receives the complete signal from the completion signal generation unit.

23. The apparatus as claimed in claim 15, further comprising a temporary stop instruction generation unit which generates a temporary stop signal upon a user's instruction, wherein the buffer transferring unit transfers again the frame from the one of the first and second buffer storing units when the buffer transferring unit receives the temporary stop signal from the temporary stop instruction generation unit.

24. The apparatus as claimed in claim 23, wherein the buffer storage processing unit temporarily stops a frame to store to the other of the first and second storing units when the buffer storage processing unit receives the temporary stop signal from the temporary stop instruction generation unit.

25. The apparatus as claimed in claim 23, wherein the buffer transferring unit keeps on transferring the frame from the one of the first and second buffer storing units until the instruction from the temporary stop instruction generation unit is released.

26. An apparatus for controlling frames of a moving picture, comprising:

a first buffer storing unit has a capacity of storable at least one frame;

a second buffer storing unit has a capacity of storable at least one frame;

a buffer storage processing unit which allocates the frames in time sequence of the moving picture to the first buffer storing unit and the second buffer storing unit;

a buffer transferring unit which transfers the frame stored in either one of the first buffer storing unit and the second buffer storing unit; and

a temporary stop instruction generation unit which generates a temporary stop signal upon a user's instruction, wherein the buffer transferring unit transfers again the frame from the one of the first and second buffer storing units when the buffer transferring unit receives the temporary stop signal from the temporary stop instruction generation unit.

27. The apparatus as claimed in claim 26, wherein the buffer storage processing unit temporarily stops a frame to store to the other of the first and second storing units when the buffer storage processing unit receives the temporary stop signal from the temporary stop instruction generation unit.

28. The apparatus as claimed in claim 26, wherein the buffer transferring unit keeps on transferring the frame from the one of the first and second buffer storing units until releasing the instruction from the temporary stop instruction generation unit.

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